Supplemental Document

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Deep learning on photoacoustic tomography to remove image distortion due to inaccurate measurement of the scanning radius: supplement

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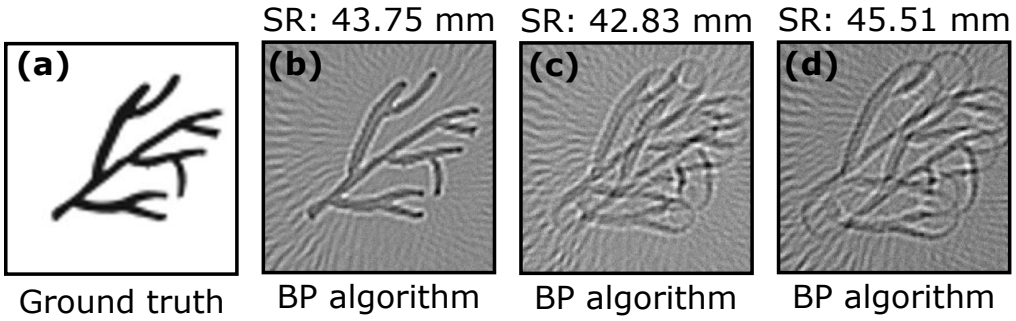

Fig. S1. (a) Ground truth, (b) image reconstruction using the BP algorithm at the original SR. (c) and (d) BP images with inaccurate SRs.

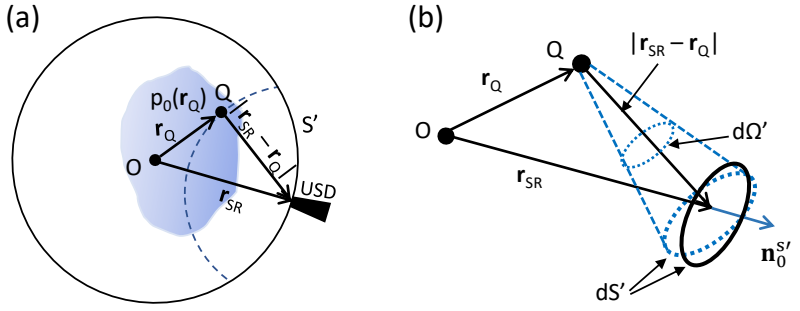

Fig. S2. (a) Measurement of the acoustic signal, coming from a source at Q, by a ultrasound detector (USD) placed on a surface S' at $\mathbf{r}_{SR}$. (b) A diagram showing formation of the solid angle $d\Omega'$ by the detection element dS' at a point Q. Similar figures are available in elsewhere.

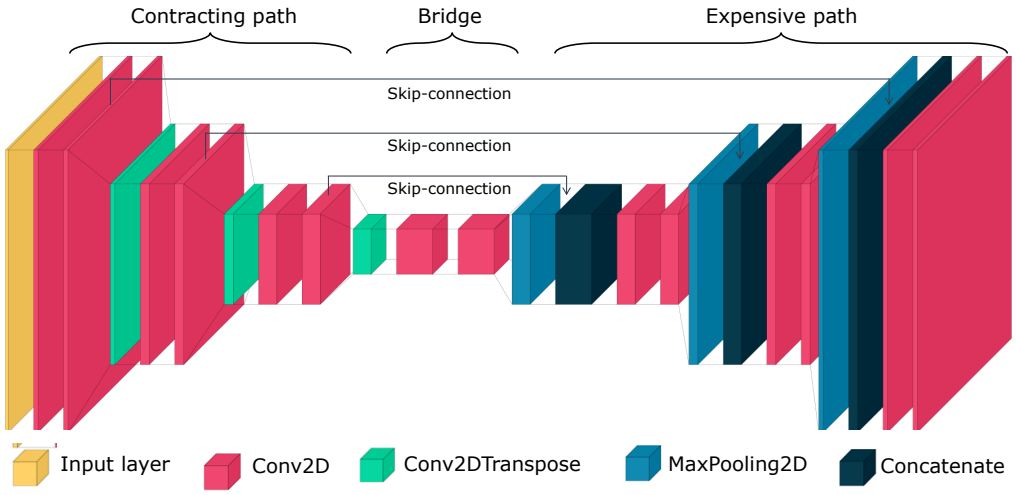

Fig. S3. Block diagram of the U-Net architecture.

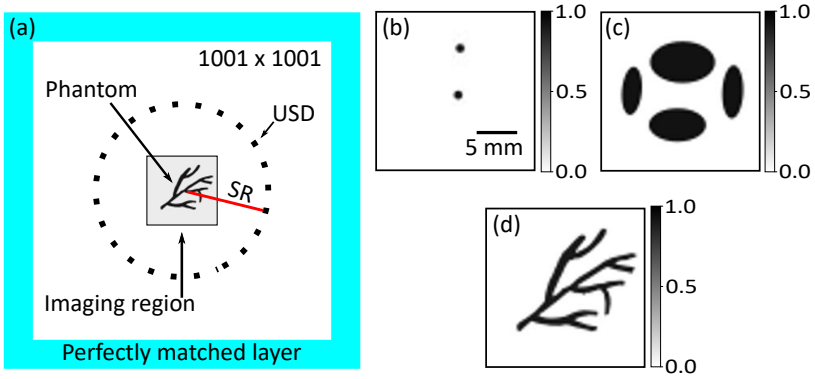

Fig. S4. (a) PAT setup for simulation. Demonstration of the two-point phantom, multi-ellipse phantom and vasculature phantom, respectively in (b), (c) and (d) used in the numerical study. Colorbar represents strength of initial pressure rise.